

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A digital camera comprising:

an image-capturing device that captures a subject image having passed through a taking lens and outputs image data;

a first image processing circuit that first performs pre-treatment on image data corresponding to N lines X M rows output by said image-capturing device in line sequence to create a first image data;

a first memory device in which the first image data is temporarily stored;
a second image processing circuit that performs format processing appropriate for recording processing on the first image data stored in said first memory device in units of blocks each ranging over n lines X m rows ($N > n$, $M > m$, n and m each are equal to or greater than 2) in block sequence, so as to create a second image data having a block size of $(n-i) \times (m-j)$, wherein i and j are integers having values of at least 1, in the format processing, the first image data are processed through a plurality of intermediate image processing steps to create the second image data, each of the intermediate image processing steps outputting a block of intermediate image data that is temporarily stored in corresponding memory areas, the block of intermediate image data output from one of the intermediate image processing steps being input to a subsequent one of the intermediate processing steps to ultimately generate the second image data, a block size of the blocks of intermediate image data output by the intermediate processing steps becoming smaller sequentially to ultimately obtain the block size of $(n - i) \times (m - j)$; and

a recording processing circuit that performs recording processing on the second image data, wherein the block size of the (n-i) X (m-j) for the second image data is necessary used for the recording processing.

2. (Previously Presented) A digital camera according to claim 1, wherein:
said recording processing circuit is constituted of a compression circuit that compresses the image data.

3. (Previously Presented) A digital camera according to claim 1, wherein:
said pre-treatment includes gamma correction and white balance correction,
and said format processing includes interpolation processing, LPF processing, BPF
processing and color difference signal calculation processing.

4. (Currently Amended) A recording medium that stores an image processing program, the image processing program comprising:

a first image processing instruction in which pre-treatment is performed on image data corresponding to N lines X M rows of image data captured by an imaging device, in line sequence to create a first image data;

a storing instruction in which the first image data is temporarily stored in a first memory device;

a second image processing instruction in which format processing is performed appropriate for recording processing on the first image data stored in the first memory device, in units of blocks each ranging over n lines X m rows ($N > n$, $M > m$, n and m each are equal to or greater than 2) in block sequence, so as to create a second image data having a block size of (n-i) X (m-j), wherein i and j are integers having values of at least 1, in the format processing, the first image data are processed through a plurality of intermediate image processing steps to create the second image data, each of the intermediate image processing steps outputting a block of intermediate image data that is temporarily stored in

corresponding memory areas, the block of intermediate image data output from one of the intermediate image processing steps being input to a subsequent one of the intermediate processing steps to ultimately generate the second image data, a block size of the blocks of intermediate image data output by the intermediate processing steps becoming smaller sequentially to ultimately obtain the block size of (n - i) X (m - j); and

a recording processing instruction in which recording processing on the second image data is performed, wherein the block size of the (n-i) X (m-j) for the second image data is necessary used for the recording processing.

5. (Previously Presented) A recording medium according to claim 4, wherein:
said recording processing is compression processing in which the second image data are compressed.

6. (Previously Presented) A recording medium according to claim 4, wherein:
said pre-treatment includes gamma correction and white balance correction
and said format processing includes interpolation processing, LPF processing, BPF
processing and color difference signal calculation processing.

7. (Previously Presented) A digital camera comprising:
an image-capturing device that captures a subject image having passed through
a taking lens and outputs image data;
a recording processing circuit that performs recording processing on image
data; and
an image processing circuit that, with the image data output by said image-
capturing device input as data corresponding to n lines X m rows, calculates color difference
signals based upon the image data thus input, performs interpolation processing and low pass
filtering processing simultaneously on said color difference signals using filter coefficients for

interpolation/low pass filtering and then performs matrix processing appropriate for recording performed at said recording processing circuit to generate a formatted signal, wherein

the interpolation processing and the low pass filtering processing are carried out by an arithmetic operation and further color difference signals obtained by the interpolation processing are assigned to pixels originally having no color difference signal.

8. (Previously Presented) A digital camera according to claim 7, wherein:
said recording processing circuit is constituted of a compression circuit that compresses the image data.

9. (Previously Presented) A storage medium for image processing having a program stored therein that executes:

format processing to format image data of an image captured at an image-capturing device for recording, in which color difference signals corresponding to n lines X m rows are calculated using image data that are input, interpolation processing and low pass filtering processing are performed simultaneously on the color difference signals corresponding to n lines X m rows using filter coefficients for interpolation/low pass filtering and then a formatted signal is generated by implementing matrix processing; and
recording processing in which image data having undergone said format processing are recorded, wherein

the interpolation processing and the low pass filtering processing are carried out by an arithmetic operation and further color difference signals obtained by the interpolation processing are assigned to pixels originally having no color difference signal.

10. (Previously Presented) A storage medium for image processing according to claim 9, wherein:

said recording processing is compression processing in which said image data are compressed.

11. (Currently Amended) A digital camera comprising:
- an image-capturing device that captures a subject image having passed through a taking lens and outputs image data;
- a first image processing circuit that first performs pre-treatment on image data corresponding to N lines X M rows output by said image-capturing device in line sequence to create a first image data;
- a memory device in which the first image data is temporarily stored;
- a second image processing circuit that performs image processing including format processing appropriate for data compression on the first image data stored in said memory device, so as to create a second image data; and
- a compression circuit that compresses the second image data, wherein:
- said second image processing circuit engages in median processing on the first image data, which have undergone the pre-treatment, corresponding to an n X m pixel area block during said format processing, wherein $N > n$, $M > m$, and n and m each are equal to or greater than 2, and
- said second image processing circuit processes the first image data to create at least a color difference data, and the color difference data undergoes the median processing.

12. - 39. (Canceled)

40. (Previously Presented) A digital camera according to claim 1, further comprising:

a second memory device in which the second image data is temporarily stored, wherein the recording processing circuit performs the recording processing on the second image data stored in the second memory device.

41. (Previously Presented) A digital camera according to claim 40, wherein:

the first memory device and the second memory device are the same memory device.

42. (Previously Presented) A digital camera according to claim 1, wherein:
the first memory device temporarily stores at least one frame of the first image data.
43. (Previously Presented) A digital camera according to claim 1, wherein:
the format processing includes a median processing on the first image data, which have undergone the pre-treatment, corresponding to an $n \times m$ pixel area block.
44. (Previously Presented) A digital camera according to claim 43, wherein:
the median processing is performed on $(n-i_1) \times (m-j_1)$ sets of image data extracted from the first image data corresponding to the $n \times m$ pixel area.
45. (Previously Presented) A digital camera according to claim 1, wherein:
the image capturing device captures a subject image to output an analog imaging signal and includes an A/D converter that converts the analog imaging signal to the image data that is digital.
46. (Previously Presented) A digital camera according to claim 2, wherein:
the second image processing circuit creates brightness data represented by $(n-i_2)$ lines $\times (m-j_2)$ rows of image data and a color difference data represented by $(n-i_3)$ lines $\times (m-j_3)$ rows of image data, based upon a partial image data with n lines $\times m$ rows of the first image data, and
both the brightness data and the color difference data are appropriate for compression performed in the compression circuit.
47. (Previously Presented) A digital camera according to claim 7, further comprising:

a median processing circuit that performs a median processing on images having undergone the interpolation processing and the low pass filtering processing.

48. (Previously Presented) A storage medium according to claim 9, wherein the program further performs:

a median processing on images having undergone the interpolation processing and the low pass filtering processing.